

What is claimed is:

1. An ink-jet recording sheet comprising a support having thereon an ink absorptive layer containing a multivalent metal compound which is coordinated with an amino acid.
2. The ink-jet recording sheet of claim 1, wherein the ink absorptive layer further contains inorganic microparticles and a hydrophilic polymer and the ink absorptive layer is a porous layer.
3. A method for preparing the ink-jet recording sheet of claim 2, comprising the steps of:
  - (a) mixing the multivalent metal compound and the amino acid to obtain a first composition;
  - (b) mixing inorganic microparticles and a hydrophilic polymer to obtain a second composition;
  - (c) mixing the first composition with the second composition to obtain a coating mixture;
  - (d) coating the coating mixture on the support to provide the ink absorptive layer; and
  - (e) drying the ink absorptive layer.

4. The method for preparing the ink-jet recording sheet of claim 3, wherein the mixing of the first composition with the second composition of the step (c) is carried out in an in-line mixing system.

5. The ink-jet recording sheet of claim 1, wherein the multivalent metal compound is selected from the group consisting of zirconium compounds, aluminum compounds and magnesium compounds.

6. The ink-jet recording sheet of claim 5, wherein the multivalent metal compound is a zirconium compound.

7. The ink-jet recording sheet of claim 1, wherein the support is non water absorptive.

8. A method for preparing the ink-jet recording sheet of claim 2, wherein the ink absorptive layer is prepared comprising the steps of:

(a) mixing the multivalent metal compound, the amino acid, inorganic microparticles and a hydrophilic polymer having an hydroxyl group in the molecule to obtain a coating mixture;

(b) coating the coating mixture on the support to provide the ink absorptive layer; and

(c) drying the ink absorptive layer,

wherein a pH value of the coating mixture of the step (a) is smaller than a pH value of a surface of the dried ink absorptive layer by an amount of not less than 0.2.

9. The method according to claim 8, wherein a volatile acid or a salt of the volatile acid is further mixed to the coating mixture of the step (a).

10. The method according to claim 9, wherein the mixing step (a) is carried out in an in-line mixing system by mixing the following two compositions:

(i) a first composition containing the multivalent metal compound, the amino acid, and the volatile acid or the salt of the volatile acid; and

(ii) a second composition containing the inorganic microparticles and the hydrophilic polymer.

11. The ink-jet recording sheet according to claim 1, wherein the amino acid is selected from the group consisting of  $\alpha$ -monoamino acids,  $\beta$ -monoamino acids and  $\gamma$ -monoamino

acids, each amino acid having carbon atoms of not more than 11 in the molecule.

12. The method according to claim 8, wherein the coating mixture obtained by the step (a) has a pH value of not more than 5.0; and the dried ink absorptive layer has a surface pH value of not less than 4.8.